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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, CUONG H

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 03/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/063,953		COELINGH ET AL.	
	Examiner		Art Unit	
	CUONG H. NGUYEN		3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-8,13-15,21 and 22 is/are rejected.
- 7) ☒ Claim(s) 2-5,7-12 and 16-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/11/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is the answer to the RCE submitted on 10/11/2005.
2. Claims 1-22 are pending in this application.

Response

3. As best interpreted, the pending independent claims contain unclear repetitions that make a claim having unnecessary redundant terms such as “at least one actuator demand signal” and a repetition in the same paragraph for “the at least one actuator demand signal” – the current examiner respectfully submits that it is unnecessary to repeat the 2nd “at least one” because this already must be referred to the previous “actuator demand signal”; for example, the examiner respectfully submits that claimed “actuator signal” is merely “a signal” since many components in a vehicle can be “an actuator” – it is vague to claim an “actuator signal” because it is not directed to any point. Claiming “a coordinator subsystem” or “control subsystem” is interpreted similar since the claimed words “coordinator” and “control” can perform similar functions in an integral module.

The examiner respectfully submits that Yamamoto et al. (US Pat. 6,018,691), Byers et al. (US PGPub. 20020107621); and Dominke et al. (US Pat. 5,991,669) also suggest a vehicle control (any vehicle control from prior art would read on a portion of CONTROL this application claims, such as “STEERING CONTROL”, “BRAKE CONTROL”, “DAMPING CONTROL” that read-on what claim in this pending application) with signals to request for a vehicle modification such as a “DEMAND ALLOCATION” in Fig.2 of Dominke et al.; and capabilities/availabilities (i.e., a request for a vehicle modification – see Dominke et al., the abstract, Figs.1-2, and col.4, lines 14-

33, a response relationship between 2 corresponding levels of control are suggested in col.4 lines 14-33; see Byers et al., for a concept of controlling a steering assembly.

The examiner suggests narrowing the pending claims to show an inventive distinguishing feature in vehicle controlling applications.

Specification Objection

4. The application's title is not descriptive because "Complete vehicle control" must reflect completeness; however, the examiner only sees an application for controlling of some portions of a vehicle – a correction is requested.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1, 6-8, 13-15, 21 and 22** are rejected under 35 U.S.C. 103(a) as obvious over **Sigl (US Pat. 5,794,735)**.

A. As per claims 1, 8, 21 and 22, according to best interpretation, Sigl suggests:

- inputting an intended driving demand to a vehicle motion control subsystem, the intended driving demand requesting a vehicle behavior modification (such as increasing a braking power, pressing an acceleration pedal, or shifting a gear, see Sigl, claim 1);
- proving many coordinator subsystems (such as STEERING, or DRIVE TRAIN/BRAKE, or SUSPENSION COORDINATOR SUBSYSTEMS - see Sigl, claim 10 for controlling an Anti-Lock Braking System, and an Anti-Slip Regulation Control unit);

- providing a control “sub”system for each “sub”system (see Sigl, claim 10 for controlling an Anti-Lock Braking System, and an Anti-Slip Regulation Control unit);
- outputting “actuator” capabilities of a control system to another system (such as “an engine output” of STEERING, or DRIVE TRAIN/BRAKE, or SUSPENSION COORDINATOR SUBSYSTEMS - see Sigl, col.1 lines 15-17, col.2 lines 17-29, col.3 lines 28-29, and col.5 lines 65-67);
- calculating a demand signal according to capabilities and an intended driving demand (this merely teaches a concept of calculating a demand/torque signal according to capabilities and an intended driving demand, see Sigl, figure 1, and col.4 lines 19-67);
- outputting the “demand” signal to a subsystem (this is merely “outputting” a signal to another system; therefore, see Sigl, col.1 lines 15-17, col.2 lines 17-29, col.3 28-29, and col.5 lines 65-67);

Sigl does not expressly disclose about:

- calculating a demand signal with each “sub”system, according to a correspond capability and a demand signal; and outputting the at least one actuator demand signal to the at least one actuator control subsystem; wherein a combination of each at least one actuator demand signal provides directions for the at least one actuator control subsystem to perform the vehicle behavior modification of the intended driving demand.
- However, the examiner respectfully submits that these functions are already suggested by Sigl as indicated in above cited column, and lines.

It would be obvious to one with ordinary skill in the art at the time this invention was made to expressly disclose about “an actuator capability” to further define what that

particular actuator is in a vehicle for an advantage of informing a relationship between a particular signal and its destination in order to contribute a vehicle controlling signal according to a driver.

B. As per claims 6, 7, 13 and 14, according to best interpretation, Sigl suggests: inputting actuator state measurements into the at least one actuator control subsystem (see Sigl, figure 1). Further, it has been held that the recitation that an element is "capabilities" perform a function is not a positive limitation but only requires an ability to so perform. It does not constitute a limitation in any patentable sense. See *In re Hutchison*, 69 USPQ 138.

C. As per claim 15, according to best interpretation, Sigl suggests:

- receiving at least one driver input from a driver of the vehicle (see Sigl, figure 1);
- - providing at least one active assist program having at least one active input, the at least one active assist program having an on setting wherein the at least one active assist program outputs at least one active input and an off setting wherein the at least one active program does not output at least one active input (see Sigl, column 2, lines 30-59);
- inputting an intended driving demand for implementing a vehicle behavior modification into a vehicle motion control subsystem (see Sigl, figure 1);
- providing an implementation subsystem (see Sigl, the abstract); and
- outputting at least a portion of the intended driving demand from the vehicle motion control subsystem to the implementation subsystem (see Sigl, figure 1);

- wherein the intended driving demand is derived from a combination of the at least one driver input and at least one active input if the at least one active assist program is in the on setting and if the driver of the vehicle does not overrule the at least one active assist program, otherwise the intended driving demand is derived from the at least one driver input (see Sigl, column 3, lines 4-54).


Claim Objections

6. Claims 2-5, 9-12, 16-20 are objected to as being dependent upon a rejected base claims, because according to best interpretation, they also contain other well-known subjects in the field of automotive control, even not being expressly suggested by Sigl (US Pat. 5,794,735) – the examiner respectfully submits that their corresponding independent claims are amended.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CUONG H. NGUYEN whose telephone number is 571-272-6759. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THOMAS G. BLACK can be reached on 571-272-6956. The Rightfax number for the organization where this application is assigned is 571-273-6759.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


CUONG H. NGUYEN
Primary Examiner
Art Unit 3661